UTAH DIVISION OF AIR QUALITY MODIFIED SOURCE PLAN REVIEW

S. Gale Chapman, President Intermountain Power Service Corporation 850 West Brush Wellman Rd Delta, Utah 84624

N0327-006

RE:

Intermountain Generating Station Approval Order Consolidation

Millard County, Utah CDS-A, ATT, Title V, NSPS

REVIEW ENGINEER:

Nando Meli Jr.

DATE:

NOTICE OF INTENT DATED:

June 18, 2001 February 6, 2001

PLANT CONTACT:

Rand Crafts

PHONE NUMBERS: FAX NUMBER:

(435) 864-6494 (435) 864-0994

PLANT LOCATION:

850 West Brush Wellman Road Delta, Millard County, Utah

UTM COORDINATES:

4,374.4 km Northing, 364.2 km Easting, Zone 12

datum NAD27

N:\NMcli\wp\Intermountain Power\Ipp AO Consolidation

····

FINAL 6/28/01

REOPEN - - USED OIL

- LIMITS OF PRESSURE

Drop
(larges)

APPROVALS:			
Poor Engineer 925 L/19/01 Tim Blanchard			
DAQ requests that a company/corporation official read the attached draft/proposed Plan Review with Recommended Approval Order Conditions. If this person does not understand or does not agree with the conditions, the PLAN REVIEW ENGINEER - TECHNICIAN should be contacted within five days after receipt of the Plan Review. Special attention needs to be addressed to the Recommended AO Conditions because they will be recommended for the final AO. If this person understands and the company/corporation agrees with the Plan Review or Recommended AO Conditions, this person should sign below and return (can use FAX # 801-536-4099) within 10 days after receipt of the conditions. If the Plan Review Engineer is not contacted within 10 days, the Plan Review Engineer shall assume that the Company/Corporation official agrees with this Plan Review and will process the Plan Review towards final approval. A public comment period will not be required before the Approval Order can be issued. Thank You			
Applicant Contact			
(Signature & Date)			
OPTIONAL: In order for this Source Plan Review and associated Approval Order conditions to be administratively included in your Operating Permit (Application), the Responsible Official as defined in R307-415-3, must sign the statement below and the signature above is not necessary. THIS IS STRICTLY OPTIONAL! If you do not desire this Plan Review to be administratively included in your Operating Permit (Application), only the Applicant Contact signature above is required. Failure to have the Responsible Official sign below will not delay the Approval Order, but will require a separate update to your Operating Permit Application or a request for modification of your Operating Permit, signed by the Responsible Official, in accordance with R307415-5a through 5e or R307-415-7a through 7i.			
"Based on reasonable inquiry, I certify that the information provided for this Approval Order has been true, accurate and complete and request that this Approval Order be administratively amended to the Operating Permit (Application)."			
Responsible Official			
(Signature & Datc)			

TYPE OF IMPACT AREA

Attainment Area Yes
NSPS Yes
40 CFR Part 60, Subpart D (Possil-Fuel-Fired Steam Generators for Which Construction is
Commenced After August 17, 1971) and Subpart Y (Coal Preparation Plants)
NESHAP
MACT No
Hazardous Air Pollutants (HAPs) Yes
Hazardous Air Pollutants Major Source Yes
(No HAPs involved in modification)
New Major Source
Major Modification
PSD Permit Yes
PSD Increment (modeling)
Operating Permit Program
Minor No
Major Yes
Send to EPA Yes
Comment period None required
FOR MODIFIED SOURCES
The Notice of Intent is for a modification to an existing source. The following standards are applicable
to this review:
NSPS applies to modification?
PSD review of entire source required?
NESHAPS applies to modification?
HAPs involved in modification?
TITLE V required for entire source? Yes
HAPs MAJOR for modification?
NONATT MAJOR for entire source?

Abstract .

Intermountain Power Service Corporation (IPSC) operates the Intermountain Generating Station (IGS) coal fired steam-electric plant that is located near Delta in Millard County. IPSC is requesting a single Approval Order to be issued that would resemble their Title V Operating Permit. It would also combine pertinent criteria from previous AOs and correct deficiencies between the AOs and the Title V operating permit for (IGS) in Delta. There will be no change in equipment, processes or emissions from the consolidation of the AOs issued to IPSC. Therefore, a public comment period will not be required. Millard County is an attainment area of the National Ambient Air Quality Standards (NAAQS) for all pollutants. New Source Performance Standards (NSPS). Subpart Da apply to this source. Title V of the 1990 Clean Air Act applies to this source. There will be no additional requirements resulting from the consolidation of the AOs. The Title V permit will be administratively amended after this AO has been issued.

I. DESCRIPTION OF PROPOSAL

Intermountain Power Service Corporation (IPSC) has submitted a Notice of Intent requesting the consolidation of the Approval Orders issued for the Intermountain Generating Station (IGS). IPSC is requesting a single Approval Order to be issued that would resemble their Title V Operating Permit. It would also combine pertinent criteria from previous AOs and correct deficiencies between the AOs and the Title V operating permit for (IGS) in Delta. The IGS is a coal fired steam-electric plant located in Millard County.

A Title V operating permit was issued to IPSC on January 9, 1998. That permit had very explicit language that specifically voided all active AOs which the permit superseded. EPA has a policy that requires that approval orders not be terminated or replaced by Title V permits.

IPSC has requested that the Λ O combine all applicable terms from the list of AOs voided by the 1/9/1998 Title V permit, excluding the requirements absent from the permit. Specifically, the permit listed the following Λ O's:

DAQE-028-97	January 08, 1997	IGS Facility & Main Boilers
DAQE-0779-93	September 15, 1993	Limestone, lime & soda ash facilities
DAQE-0824-92	September 04, 1992	Vacuum Cleaning Systems
BAQE-102-87	December 07, 1987	Coal Sample Preparation Building
BAQ-0873-1	April 28, 1987	Sandblast Facility
Approval Order	February 11, 1987	Diesel Engines (generators & pumps)

II. EMISSION SUMMARY

The emissions from Intermountain Power plant are as follows:

1999 Emission Inventory

Emission Changes

Total Emissions

Pollutani	L	tons/year	tons/year	tons/year
PM ₁₀ SO ₂		3.698.32	0.0	3,098.34
NO _x CO VOC		1.312.44	0.0	1,312.44
HAPs	taldehyde	1.50	0.0	1.50
17	-ut Chlorida	1.84	0.0	1.04
Und	Irochloric Acid 4	7.79	0.0	47.77
lsor	phorone	1.52	0.0	1.32
Met	thylene Chloride	0.76	0.0	1.02
Cal.	minm Compounds	1.70	0.0	1.70
Sul Mis	c < 0.5 tons each	3.14	0.0	3.14

There will be no changes in processes or equipment. Therefore, the emissions will in affect be the same.

III. BEST AVAILABLE CONTROL TECHNOLOGY (BACT) ANALYSIS

There will be no changes in processes or equipment. Therefore, a BACT analysis was not performed.

1V. APPLICABILITY OF FEDERAL REGULATIONS AND UTAH ADMINISTRATIVE CODES (UAC)

The Notice of Intent submitted is for an existing source. It is not a new major source or a major modification. At the time of this review the Utah Administrative Code Rules 307 (UAC R307) and federal regulations have been examined to determine their applicability to this Notice of Intent. The following rules have been specifically addressed.

- R307-101-2, <u>Major Modification</u> means any physical change in or change in the
 method of operation of a major source that would result in a significant net emissions
 increase of any pollutant.
- 2. R307-107, UAC Unavoidable breakdown reporting requirements.

- R307-150 Series, UAC Inventories, Testing and Monitoring. These rules cover
 emission inventory reporting requirements and require the owner or operator of sources
 of air pollution to submit an emissions inventory report:
 - R307-150. Emission Inventories R307-155. Hazardous Air Pollutant R307-158. Emission Statement Inventory.
- 4. R307-201-1(2), UAC 20% minimum opacity limitation at all emission points. Visible emissions from installations constructed after April 25, 1971, except internal combustion engines, or any incinerator shall be of a shade or density no darker than 20% opacity, except as otherwise provided in these regulations.
- 5. R307-201-1(9), UAC Opacity Observation.
- 6. R307-203-1(1), UAC Commercial and Industrial Sources. Any coal, oil, or mixture thereof, burned in any fuel burning or process installation not covered by New Source Performance Standards for sulfur emissions shall contain no more than 1.0 pound sulfur per million gross Btu heat input for any mixture of coal nor .85 pounds sulfur per million gross Btu heat input for any oil.
- 7. R307-205 (UAC) Emission Standards: Fugitive Emissions and Fugitive Dust.
- R307-206, UAC Abrasive Blasting Requirements Opacity limitations and performance standards for <u>abrasive blasting</u>.
- R307-305-5(1), UAC Existing sources located in or affecting areas of nonattainment shall use reasonably available control measures to the extent necessary to insure the attainment and maintenance of the National Ambient Air Quality Standards (NAAQS).
- 10. R307-325-1(1) R307-325 applies to all sources in R307-326 through 341, major sources as defined and outlined in section 182 of the Clean Air Act and non-major sources located in Davis and Salt Lake Counties and in any nonattainment area for ozone as defined in the State Implementation Plan.
- 11. R307-401-7, UAC Rules for relocation of temporary sources.
- 12. R307-401-10(1), UAC All sources excluding non-commercial residential dwellings shall install oxides of nitrogen control/low oxides of nitrogen burners or controls resulting from application of an equivalent technology, as determined by the Executive Secretary, whenever existing fuel combustion burners are replaced, unless such replacement is not physically practical or cost effective. The request for an exemption shall be presented to the Executive Secretary for review and approval.
- R307-403-3, UAC Every major new source or major modification must be reviewed by the Executive Secretary to determine if a source will cause or contribute to a violation of

the NAAQS.

- R307-403-5(1)(b), UAC Enforceable offsets of 1.2:1 are required for new sources or modifications that would produce an emission increase greater than or equal to 50 tons per year of any combination of PM₁₀, SO₂, and NO₂.
- R307-403-5(1)(c), UAC Enforceable offsets of 1:1 are required for new sources or modifications that would produce an emission increase greater than or equal to 25 tons per year but less than 50 tons per year of any combination of PM₁₀, SO₂, and NO_x.
- 16. R307-405, UAC Permits: Prevention of Significant Deterioration of Air Quality (PSD)
 - 405-1. Definitions
 - 405-2. Area Designations
 - 405-3. Area Redesignation
 - 405-4. Increments and Coilings
 - 405-5. Baseline Concentration and Date
 - 405-6. PSD Areas New Sources and Modifications
 - 405-7. Increment Violations
 - 405-8. Banking of Emission Offset Credit in PSD Areas
- 17. R307-406, UAC Visibility 406-1.(1) The Executive Secretary shall review any new major source or major modification proposed in either an attainment area or area of nonattainment area for the impact of its emissions on visibility in any mandatory Class I area.
- 18. R307-410, UAC Permits: Emissions Impact Analysis (Air Quality Modeling)
- 19. R307-413, UAC Permits: Exemptions and Special Provisions
 - 413-1. Definitions and General Requirements
 - 413-2. Small Source Exemptions De minimis Emissions
 - 413-3. Flexibility Changes
 - 413-4. Other Exemptions
 - 413-5. Replacement-in-Kind Equipment
 - 413-6. Reduction of Air Contaminants
 - 413-7. Exemption from Notice of Intent Requirements for Used Oil Fuel Burned for Energy Recovery
 - 413-8. De minimis Emissions From Air Strippers and Soil Venting Projects
 - 413-9. De minimis Emissions From Soil Acration Projects.
- 20. R307-420, UAC Permits: Ozone Offset Requirements in Davis and Salt Lake Counties.
- 40 CFR, Part 50 National Ambient Air Quality Standards (NAAQS). The following areas are Non-attainment areas:
 - PM₁₀ Salt Lake and Utah Counties
 - SO₂ Salt Lake County and The Oquirrh Mountains above 5,600 feet in Eastern

Toocle County
CO Ogden, and Provo

The following areas are Maintenance Areas:
Ozone Salt Lake and Davis Counties
CO Salt Lake City

- 22. 40 CFR 60.15, <u>Definition of Reconstruction</u> the replacement of components of an existing facility to such an extent that:
 - The fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable entirely new facility and
 - B. It is technologically and economically feasible to meet the applicable standards set forth in this part.

V. RECOMMENDED APPROVAL ORDER CONDITIONS

General Conditions:

1. This Approval Order (AO) applies to the following company:

Intermountain Power Service Corporation 850 West Brush Wellman Road Delta, Utah 84624

Phone Number

(435) 864-4414

Fax Number

(435) 864-4970

The equipment listed below in this AO shall be operated at the following location:

PLANT LOCATION:

850 West Brush Wellman Road Delta, Millard County, Utah

Universal Transverse Mcrcator (UTM) Coordinate System: datum NAD27 4,374.4 kilometers Northing, 364.2 kilometers Easting, Zone 12

- Definitions of terms, abbreviations, and references used in this AO conform to those
 used in the Utah Administrative Code Rule 307 (UAC R307), and Title 40 of the Code of
 Federal Regulations (40 CFR). These definitions take precedence, unless specifically
 defined otherwise herein.
- The limits set forth in this AO shall not be exceeded without prior approval in accordance with R307-401.
- Any future changes or modifications to the equipment and processes approved by this
 AO that could affect the emissions covered by this AO must be approved in accordance
 with R307-401-1.
- 5. All records referenced in this AO or in applicable NSPS which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request, and the records shall include the two-year period prior to the date of the request. All records shall be kept for a minimum period of two years. Emission inventories shall be kept for a period of five years from the due date of each emission statement or until the next inventory is due, whichever is longer.
- 6. Intermountain Power Service Corporation (IPSC) shall conduct its operations of the Intermountain Generating Station (IGS) coal fired electric steam plant in accordance with the terms and conditions of this AO, which was written pursuant to 's Notice of Intent submitted to the Division of Air Quality (DAQ) on February 5, 2001, and additional information submitted to the DAQ on June 11, 2001.

 This AO shall supersede all AO's and preconstruction permits previously assigned to the IPSC site, which shall include but is not limited to the following AOs:

AO without an assigned number dated February 11, 1987 BAQ-0873-1 dated April 28, 1987 BAQE-102-87 dated December 7, 1987 DAQE-0824-92 dated September 4, 1992 DAQE-0779-93 dated September 15, 1993 DAQE-028-97 dated January 8, 1997

This AO shall not supersede the Experimental AO's issued for the IGS located in Millard County.

- 8. The approved installations shall consist of the following equipment or equivalent*:
 - A. Unit #1 Coal Fired Boiler
 Rating 8,500 x 106 Btw/hr (MMBTU/hr)

B. Unit #2 Coal Fired Boller

Rating 8,500 MMBTU/hr

- C. Coal railcar unloading dust collector 1A
- D. Coal railcar unloading dust collector 1B
- E. Coal railcar unloading dust collector IC
- F. Coal railcar unloading dust collector 1D
- G. Coal truck unloading dust collector 2
- H. Coal reserve reclaim dust collector 3
- I. Coal transfer building #1 dust collector 4
- J. Coal transfer building #2 dust collector 5
- K. Coal transfer building #4 dust collector 6
- L. Coal crusher building dust collector 11
- M. U1 Generation building coal dust collector 13Λ
- N. U1 Generation building coal dust collector 13B
- O. U2 Generation building coal dust collector 14A
- P. U2 Generation building coal dust collector 14B
- Q. Coal pile active and reserve
- R. Coal Stackout
- S. Fuel oil tank 1A

Capacity 675,000 gallons

T. Fuel oil tank IB

Capacity 675,000 gallons

- U. Limestone unloading dust collector 1A
- V. Limestone unloading dust collector 1B
- W. Limestone transfer dust collector 1
- X. Limestone reclaim dust collector 2
- Y. Limestone silo bin vent filterZ. Limestone crusher dust collector 3
- AA. Limestone preparation dust collector 4

BB. Limestone storage pile Lime silo dust collector 1 CC. Lime hopper dust collector 2 DD. Soda ash silo dust collector 3 EE. Soda ash hopper dust collector 4 FF. Fly ash silo bin vent filter 1A GG. Fly ash silo bin vent filter 1B HH. Combustion byproducts stackout & stockpile 11. Combustion byproducts landfill IJ. Unit I cooling tower IA KK. Unit I cooling tower 1B LL. Unit 2 cooling tower 1A MM. Unit 2 cooling tower IB NN. Coal sample preparation building dust collector 00. Sandblast facility dust collector PP. U1 Generation building vacuum cleaning dust collector QQ. U2 Generation building vacuum cleaning dust collector RR. U1 Fabric filter vacuum cleaning dust collector SS. U2 Fabric filter vacuum cleaning dust collector TT. GSB vacuum cleaning dust collector WJ. Guzzler truck dust collector VV. Emergency generators ww. 4,000 Hp diesel lA 4,000 Hp diesel 1B 4,000 Hp diesel IC XX. Solvent washers Diesel driven fire pump rated at 290 Hp 1B YY. Diesel driven fire pump rated at 290 Hp 1C ZZ. Auxiliary boiler 1A AAA. 166 MMBTU/hr Rating Auxiliary boiler 1B BBB. 166 MMBTU/hr Rating CCC. Coal Conveyors DDD. Paint booth/shops Engine driven equipment including compressors, generators, hydraulic pumps EEE. and diesel fire pumps Bulb recycling crusher FFF. GGG. Laboratory fume hoods HHHL Gasoline tank 500 gallons Capacity III. Diesel tank 10,000 gallons Capacity Diesel day tanks JJJ. not exceeding 560 gallons per tank Capacity KKK. Mobile oil storage tanks not exceeding 12,000 gallons per tank Capacity

LLL. Turbine lube oil units not exceeding 40,000 gallons per unit Capacity MMM. Underground storage diesel tank 20,000 gallons Capacity NNN. Underground storage gasoline tank 6,000 gallons Capacity OOO. Used oil tank 10,000 gallons Capacity PPP. Class III Industrial Waste Landfill QQQ. Paved haul road RRR. Haul road and access road SSS. Coal truck unloading grating

Limitations and Tests Procedures

 Emissions to the atmosphere at all times from the indicated emission points shall not exceed the following rates and concentrations:

Main Boilers

Pollutant 1b/10	1b/ 106 BTU heat input		
PM ₁₀	0.020 lb/ 10 ⁶ BTU heat input 0.150 lb/ 10 ⁶ BTU heat input		
NO _x	10.0 % of the combustion concentration		

Dust Collectors

Pollutant/Source	erains/dscf
PM ₁₀	
Rail car unloading (4 units)	0.024 (each unit)
Transfer building onc	
Unit one 13A	0.024
Transfer building two	0.024
Transfer building four	0.024
Crusher building one	0.024
Unit one 138	0.024
Unit two 14A	0.024
Unit two 14B	0.024
Limestone preparation building	

^{*} Equivalency shall be determined by the Executive Secretary.

^{**} This equipment is listed for informational purposes only. There are no emissions from this equipment.

Auxiliary Boilers

<u>Pollutant</u>	1b/ 106 BTU beat input	lbs/hr
SO	0.10	100

- Visible emissions from the following emission points shall not exceed the following values:
 - A. All abrasive blasting 40% opacity
 - B. All other points 20% opacity

Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A. Method 9.

For sources that are subject to NSPS opacity standards shall be determined by conducting observations in accordance with 40 CFR 60.11(b) and 40 CFR 60, Appendix A, Method 9.

- 11. The following consumption limit shall not be exceeded:
 - 50,000 barrels of fuel oil consumed per calendar year in the auxiliary boilers.

To determine compliance with annual limit the owner/operator shall calculate a total by the January 20th of each year using data from the previous 12 months. Records of consumption shall be kept for all periods when the plant is in operation. Consumption shall be determined by fuel oil totalizer records. The records of consumption shall be kept on a monthly basis.

- 12. The emergency generators shall be operated on an emergency basis only, except for routine engine maintenance and testing. Records documenting generator usage shall be kept in a log and they shall show the date the generator was used, the duration in hours of the of generator usage, and the reason for each generator usage
- 13. The diesel driven fire pumps shall be operated on an emergency basis only, except for routine engine and fire system maintenance and testing. Records documenting diesel driven fire pump usage shall be kept in a log and they shall show the date the diesel driven fire pump was used, the duration in hours of the of diesel driven fire pump, and the reason for each diesel driven fire pump usage

Roads and Fugitive Dust

14. IPSC shall abide by a fugitive dust control plan acceptable to the Executive Secretary for control of all dust sources associated with the Intermountain Power Generation site.

lPSC shall submit a fugitive dust control plan to the Executive Secretary, attention: Compliance Section, for approval within 30 days of the date of this AO. This plan shall contain sufficient controls to prevent an increase in PM_{10} emissions above those modeled for this AO. The limitations and conditions in the fugitive dust control plan shall not be changed.

The haul road length, speed or any other parameter used to calculate emissions shall not be increased above the limits established in the fugitive dust control plan. The haul road speed shall be posted as in the fugitive dust control plan.

15. The facility shall abide by all applicable requirements of R307-205 for Fugitive Emission and Fugitive Dust sources.. The provisions of R307-205 shall not apply to any sources for which limitations for fugitive dust or fugitive emissions are assigned pursuant to R307-401 or R307-305 nor shall they apply to agricultural or horticultural activities.

Fuels

- 16. The sulfur content of any fuel oil combusted shall not exceed:
 - A. 0.85 lb per MMBTU heat input for fuel oil used in the main boilers
 - B. 0.58 percent by weight for fuel oil combusted in the auxiliary bollers.

The sulfur content shall be determined by ASTM Method D-4294-89 or approved equivalent. Certification of used oil shall be either by Il'SC's own testing or test reports from the fuel oil marketer.

Federal Limitations and Requirements

17. In addition to the requirements of this AO, all applicable provisions of 40 CFR 60, New Source Performance Standards (NSPS) Subpart A, 40 CFR 60.1 to 60.18 and Subpart Da, 40 CFR 60.4 to 60.49a (Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978) apply to this installation.

Subpart Y, 40 CFR 60.250 to 60.254 (Standards of Performance for Coal Preparation Plants apply to this installation.

Records & Miscellaneous

18. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this Approval Order including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being

used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. Scheduled and unscheduled maintenance performed on equipment authorized by this AO shall be recorded, and the records shall be maintained for a period of two years.

- The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring.
- The owner/operator shall comply with R307-107. General Requirements: Unavoidable Breakdowns..

The Executive Secretary shall be notified in writing if the company is sold or changes its name.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including R307.

A copy of the rules, regulations and/or attachments addressed in this AO may be obtained by contacting the Division of Air Quality. The Utah Administrative Code R307 rules used by DAQ, the Notice of Intent (NOI) guide, and other air quality documents and forms may also be obtained on the Internet at the following web site:

http://www.eq.state.ut.us/eqair/aq_home.htm

The annual emission estimations below include point source, fugitive emissions, fugitive dust and do not include road dust, tail pipe emissions, grandfathered emissions etc.. These emissions are for the purpose of determining the applicability of Prevention of Significant Deterioration, nonattainment area, Maintenance area, and Title V source requirements of the R307. They are not to be used for determining compliance.

The Potential To Emit (PTE) emissions for the IPSC power generation plant are currently calculated at the following values:

	Pollutant	
A.	PM ₁₀	248.88
B.	SO ₂	
C.	NO,	
D.	co	
E.	voc	14.29
F.	HAPs	82.67